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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,139	02/09/2004	Hiroaki Jo	118428	5438

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OLIFF & BERRIDGE, PLC  
P.O. BOX 19928  
ALEXANDRIA, VA 22320

EXAMINER

KOVALICK, VINCENT E

ART UNIT PAPER NUMBER

2629

DATE MAILED: 10/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/773,139

Applicant(s)

JO, HIROAKI

Examiner

Vincent E. Kovalick

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 2/9/04 & 2/3/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This Office Action is in response to Applicant's Patent Application, Serial No. 10/773,139, with a File Date of February 9, 2004.

#### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9, (last two lines) recites the limitation "the **element formation area** being disposed at a central portion, and the **element formation area** being disposed around the **element formation area**." This teaches the 'element formation area' being disposed around itself.

Dependent claims 10 and 15, being dependent on independent claim 9 are rejected in that they are dependent on rejected claims 9.

#### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-6, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mikami et al. (Pub. No. US 2003/0111966) taken with Komiya (Pub. No. US 2003/0030601). Relative to claims 1, 3-4 and 13, Mikami et al. **teaches** an electro-optic image display apparatus (pgs. 2/3, paras. 0012-0033); Mikami et al. further **teaches** an electronic device comprising a plurality of unit circuits in correspondence with intersections of a plurality of first signal lines and a plurality of second signal lines; each active element controlling the drive voltage or the drive current (pg. 2 para. 0013).

Mikami et al. **does not teach** each unit circuit including at least two electronic elements or at least two active elements, each electronic element having a first terminal and a second terminal and being driven by a drive voltage applied to the first terminal or by a drive current flowing between the first terminal and the second terminal.

Komiya **teaches** an organic EL electro-optical circuit (pg. 1, paras. 0010-0013); Mikami et al. further **teaches** each unit circuit including at least two electronic elements or at least two active elements, each electronic element having a first terminal and a second terminal and being driven by a drive voltage applied to the first terminal or by a drive current flowing between the first terminal and the second terminal.(pg. 2, paras. 0031-0032 and Fig. 3).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Mikami et al. the feature as taught by Komiya in order to put in place and connect the active elements necessary to complete the display matrix; once the signal lines are established, to complete the display panel the pixel elements are then put in place

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to correspond and connect at the intersections of the first signal lines (data lines) and the second signal lines (gate lines).

Regarding claim 2, Komiya further **teaches** the said electronic device further comprising a plurality of power lines, in each unit circuit, the active element is electrically connected between the electronic element and corresponding one of the power lines (Fig. 3, item PVDD)

Relative to claims 5 and 14, Komiya further **teaches** the said electro-optical device wherein each electrooptical element being an electroluminescence element (pg. 2, paras. 0031-0032).

Regarding claim 6, Komiya further **teaches** the said electro-optical device wherein each electroluminescence element being an organic electroluminescence element (pg. 2, paras. 0031-0032).

6. Claims 7-8, 11 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mikami et al. taken with Komiya as applied to claim 1 in item 5 hereinabove, and further in view of Hakyashi (Pub. No. US 2001/0011898) taken with Martin et al. (USP 6,356,248).

Relative to claims 7 and 11, Mikami et al. taken with Komiya **does not teach** each unit pixel having a plurality of electro-optical material placement areas where electro-optical material is placed, and the plurality of unit pixels including a unit pixel having an electro-optical material placement area in which the electro-optical material does not operate, among the plurality of electro-optical material placement areas.

Hayashi **teaches** an active matrix display device (pgs. 1/2 paras. 0009-0018); Hayashi further **teaches** each unit pixel having a plurality of electro-optical material placement areas where electro-optical material is placed (pg. 1, para. 0027 and Fig. 1 item LC).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to

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provide to the device as taught by Mikami et al. taken with Komiya the feature as taught by Hayashi in order to put in place the electro-optical material with the desired display characteristics.

Mikami et al. taken with Komiya in view of Hayashi **does not teach** the plurality of unit pixels including a unit pixel having a elector-optical material placement area in which the electro-optical material does not operate, among the plurality of electro-optical material placement areas.

Martin et al. **teaches** an electro-optical display structure ( col. 2, lines 6-67 and col. 3, lines 1-38); Martin further **teaches** the plurality of unit pixels including a unit pixel having a elector-optical material placement area in which the electro-optical material does not operate, among the plurality of electro-optical material placement areas (pg. 5, lines 30-48 and Fig. 7).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Mikami et al. taken with Komiya in view of Hayashi the feature as taught by Martin et al. in order to provide a pixel matrix structure that accommodates utilizing portions of the electro-optical material as well as providing portions of the electro-optical material disengaged from the electrical control means.

Regarding claims 8 and 16, Komiya further **teaches** the said electro-optical device material being an organic material (pg. 2, paras. 0031-0032).

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mikami et al. taken with Komiya in view of Hayashi taken with Martin as applied to claim 11 in item 6 hereinabove, and further in view of Nicholas (USP 5,490,002).

Regarding claim 12, Mikami et al. taken with Komiya in view of Hayashi taken with Martin **does not teach** the method step wherein electrically disconnecting the electro-optical material

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placement area that does not operate from the corresponding active element is carried out by laser.

Nicholas teaches active matrix display devices having bidirectional non-linear adjacent pixel (col. 2, lines 31-67 and col. 3, lines 1-47); Nicholas further **teaches** the method step wherein electrically disconnecting the electro-optical material placement area that does not operate from the corresponding active element is carried out by laser.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Mikami et al. taken with Komiya in view of Hayashi taken with Martin the feature as taught by Nicholas in order to put in place the means and methodology to disconnect the electro-optical material placement area that does not operate from the corresponding active element area.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pub. No. US 2003/01932286 Ottermann et al.

Pub. No. US 2002/0058399 Sato et al.


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***To Respond***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent E. Kovalick whose telephone number is 571-272-7669. The examiner can normally be reached on Monday-Thursday 7:30- 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Vincent E. Kovalick  
October 20, 2006

  
BIPIN SHALWALA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600